

# **1999 SOLID WASTE ANNUAL REPORT**

Seattle Public Utilities, Resource Planning, Forecasting and Evaluation

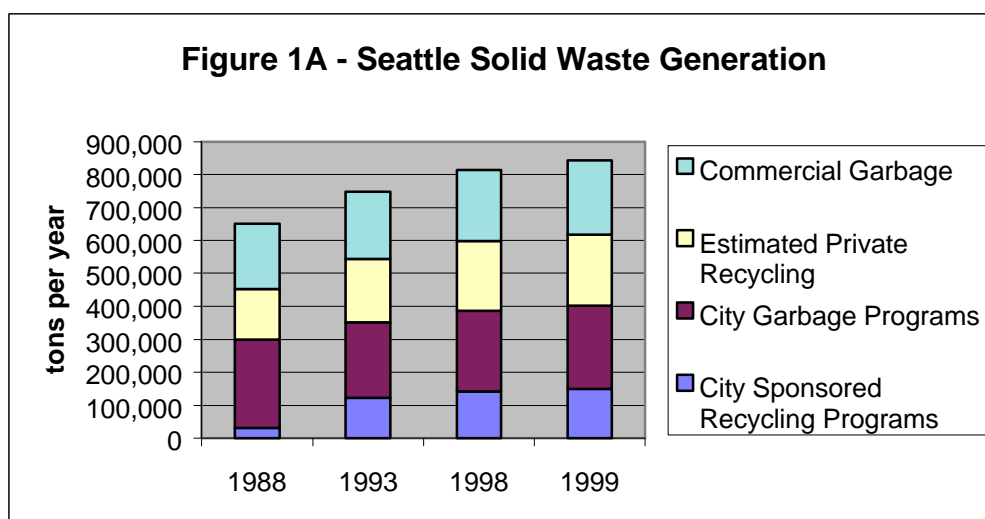
March 2000

## SUMMARY and OVERVIEW

Seattle Public Utilities (SPU) contracts for and manages Seattle's residential garbage, yardwaste and recycling services, and operates two transfer stations for City residents and businesses. Two state-franchised haulers provide collection of commercial garbage. Many private companies provide commercial recycling services. All garbage is long-hauled by train to a landfill in eastern Oregon.

Seattle continues to experience strong economic growth, which translates to ever-increasing tons of garbage and recycling, due to both residential and commercial growth. See Table 1 and Figure 1A.

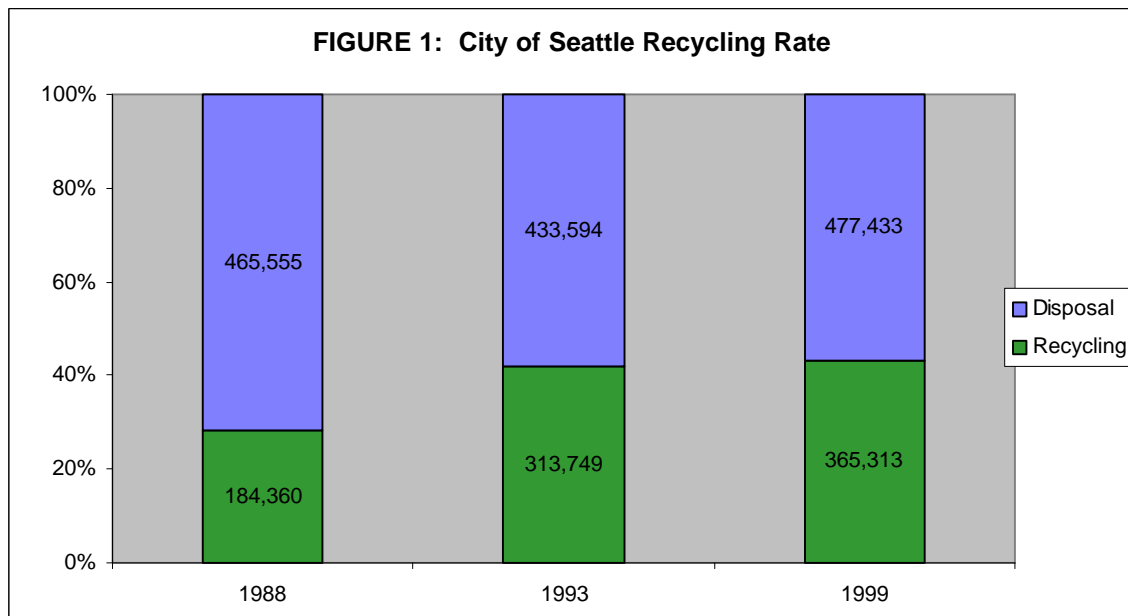
TABLE 1: Generation and Recycling in Seattle	1988	1993	1998	1999
City Sponsored Recycling Programs	31,300	122,500	142,100	150,000
City Garbage Programs	267,400	229,700	244,000	252,100
Estimated Private Recycling	153,100	191,300	213,000	215,300
Commercial Garbage	198,200	203,900	213,600	225,300
Estimated Total Generation	649,900	747,300	812,700	842,700
Estimated overall recycling rate	28%	42%	44%	43%



The majority of Seattle residents and employees have a strong commitment to recycling. City-sponsored recycling programs have exhibited steady but slow growth. See Table 2.

<b>TABLE 2: Program summary</b>	<b>1999</b>	<b>98-99 change</b>
Curbside Recycling	63,033	+4.99%
Apartment Recycling	10,624	+3.76%
Curbside Yard Waste	39,737	-1.99%
Self-Haul Yard Waste	13,692	+5.05%
Recycling at Stations (including wood and appliances)	7,381	+16.14%
Grass Cycling & Back Yard Composting	15,535	+16.95%
Residential Garbage Collection	147,718	+1.22%
Self-Haul Garbage	104,367	+6.48%
Residential Food Waste Collection	0	
Total recycling through city programs	150,002	+4.58%
Total garb and recycling through city programs	402,087	+4.14%

The result of this has been a relatively constant recycling rate over the past few years. See Figure 1.



New contracts that begin in 2000 include the collection of more recyclable materials, which could bring a jump up in recycling tons as a result.

Seattle's goal is to reach a 60% overall recycling rate by 2008. We have also established individual sector goals for the residential, self-haul, and commercial sectors.

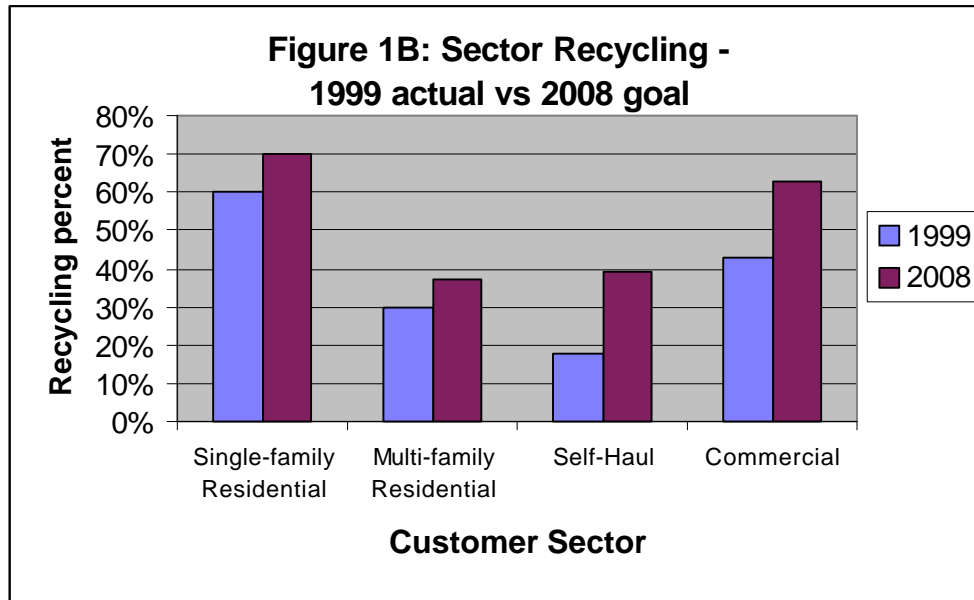
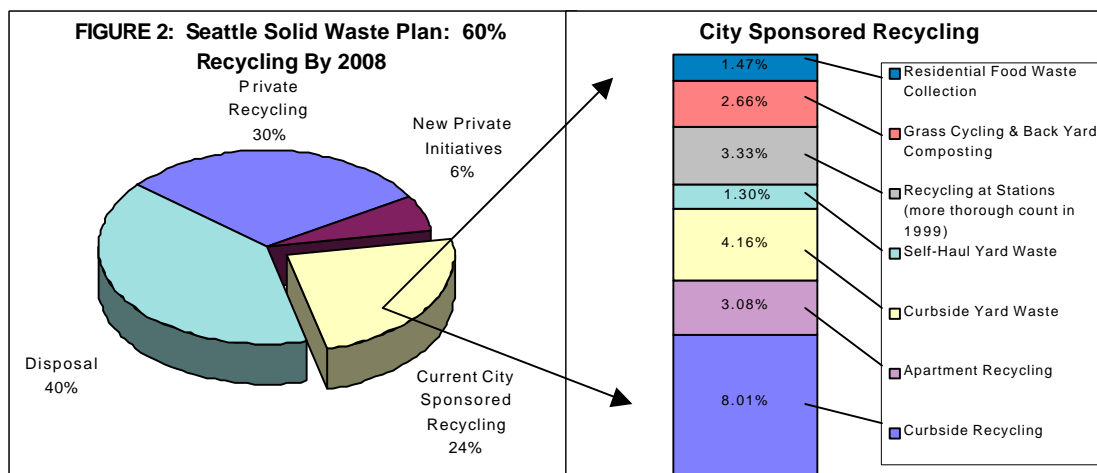


Figure 1B shows how these sectors performed in 1999 compared to 2008 goals.<sup>1</sup>

We expect half of the increased recycling to come from new and expanded city-sponsored recycling programs and half from increased private recycling primarily by the commercial sector. See Figure 2.



It will require aggressive marketing and implementation of new programs for Seattle to reach this goal.

<sup>1</sup> 1999 commercial recycling based on 1995 estimates.

## 1999 HIGHLIGHTS

Residential: In late 1998, SPU issued a Request for Proposals for new residential garbage, recycling and yardwaste collection service contracts. Five proposers responded, and contracts were awarded in 1999. The contracts, which take effect April 13, 2000, include several improvements to the existing service structure:

- *Fewer contracts:* Two contracts were awarded. Each contractor will provide all of the residential collection services for an area of the city. In the past, multiple contractors provided garbage and recycling services, adding complexity to customer relations and complaint resolution.
- *Consistent Service Across City:* The services provided to single-family residents will be the same, city-wide, in terms of service frequency, types of containers, and recyclable sorting requirements. All will receive weekly collection of garbage, and every-other-week collection of recycling and yard waste. In the past, there were differences between services provided in different areas of the city.
- *Same Day Collection:* In a given neighborhood, all three collection services (garbage, yardwaste and recycling) occur on the same day of the week.
- New recyclable materials are included.
- There is a new yard waste fee structure that is more equitable. It maintains a low monthly fee for low and moderate-level service users, and allows for additional charges for high-level service users.

New residential rates: The majority of single family can rates did not increase. Minor residential rate changes took effect December 31, 1999. Multi-family can rates went from \$.30 to \$.40 per month to make them consistent with single family rates. Dumpster rates went up an average of 8%. In addition, a new yard waste rate structure was approved that will go into effect April 2000. Residents will pay a flat rate of \$4.25 for up to 4 units per every-other-week collection, plus an extra \$1.50 per additional unit.

Self-haul: In 1999, there was a change to the definition of customers eligible for the transfer station flat rate. Earlier studies and analysis of transfer station data had two significant findings: 1. The prior flat \$8.50 fee charged to passenger vehicles was much lower than the cost of providing service. 2. Van and pick-up customers were bringing in a much larger average load than other passenger vehicles. So, in response, the flat rate was raised to \$13, the minimum rate for pay-by-the-ton customers was lowered to \$13, and vans and pick-ups were excluded from the passenger vehicle rate and required to weigh in and weigh out and pay by the ton. Results: The average load weight of the flat rate customers dropped from 390 to 333 pounds, as heavier-load customers were shifted to the pay-by-the-ton category. The current flat rate approximately equals the cost to provide service. Effective December 31, 1999, all transfer station rates were increased by 2.8%. The current transfer station tip fees are \$96.25, \$70.60, and \$49.40 for garbage, yard waste, and wood waste, respectively.

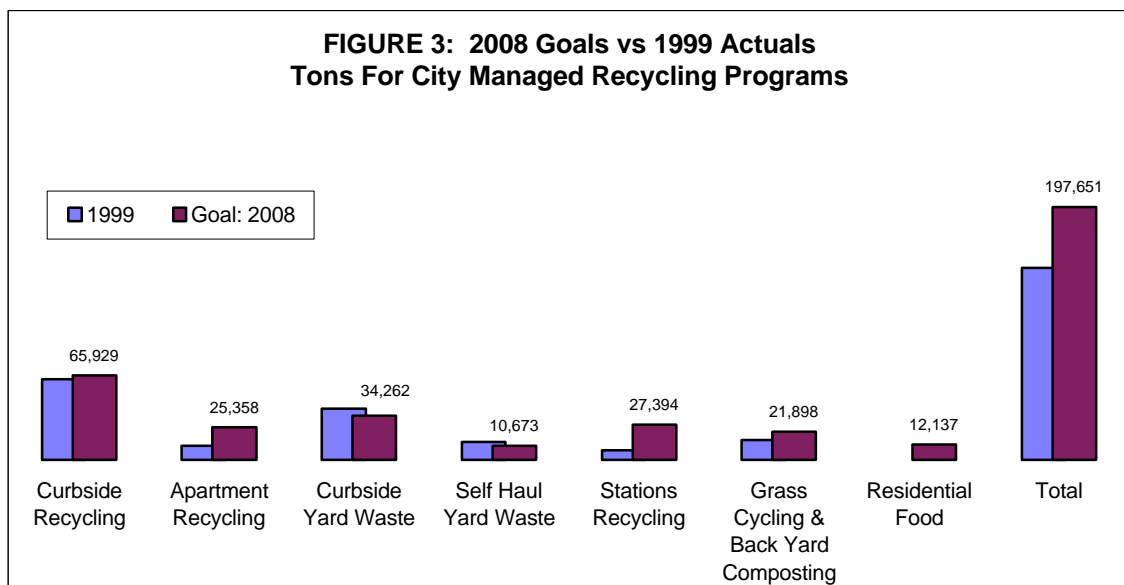
Commercial:

- Negotiations continued with the franchise haulers. The City is pursuing collection contracts with the commercial garbage haulers. These negotiations are based on a 1995 study showing that commercial rates were high, and that savings for customers could be achieved by awarding contracts for exclusive service areas, thus increasing the efficiency of providing service.
- Rate change at the rail head: The commercial tip fee increased 2.8%, from \$62.20 to \$63.95, on January 17, 2000.

**PROGRAM PERFORMANCE AND NEW INITIATIVES**

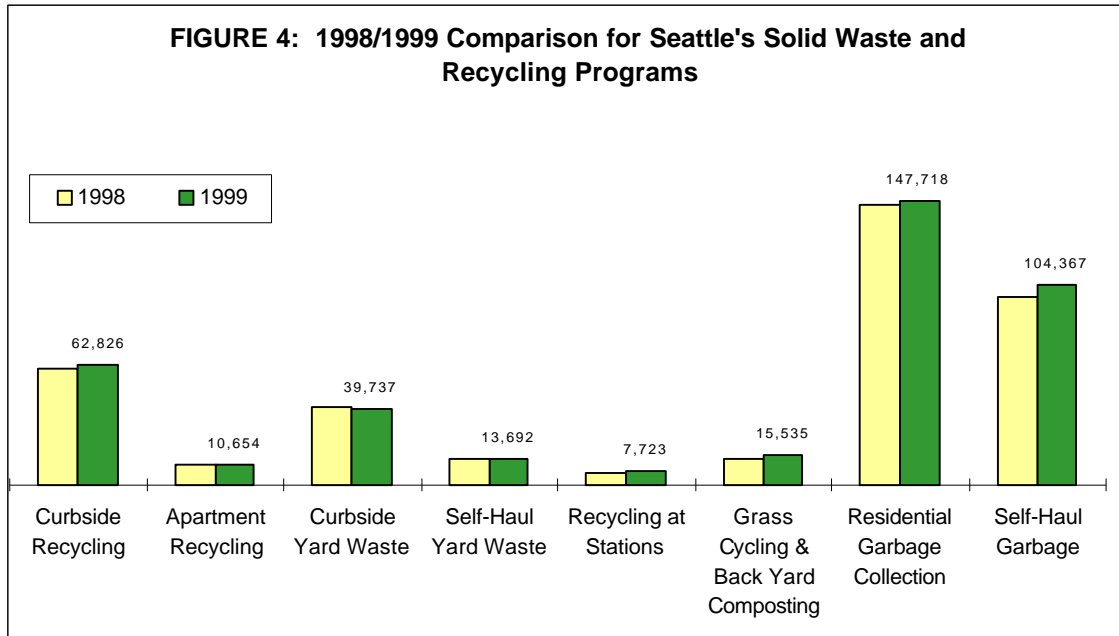
In 1998, SPU issued a new long range solid waste plan: *On The Path To Sustainability*.<sup>2</sup> This Plan assessed the current performance of Seattle's solid waste system, defined new diversion goals, and reaffirmed old as well as identified new strategies to meet these goals. Some of the goals were achieved in the issuance of new collection contracts (described above). Other elements of the Plans' initiatives are described in the sections below. Overall, a little less than half of the new recycling is targeted to come from City-sponsored programs. The rest will come from business and residential recycling outside of city programs. The City will support these efforts through promotion and education. Figure 3 show how City-sponsored recycling performed in 1999, compared to the goals for 2008.

Two new programs will be key to achieving the 60% goal: a residential foodwaste collection program, and an expanded recycling center at the South Recycling and Disposal Station.

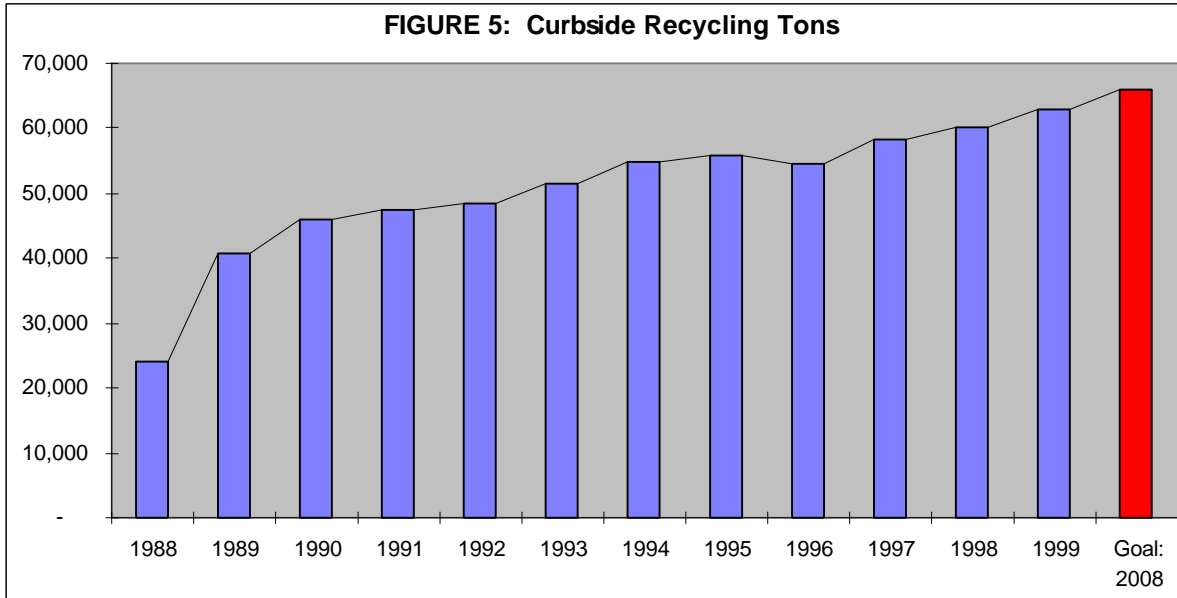


<sup>2</sup> See <http://www.ci.seattle.wa.us/util/swplan/> to view the Plan.

Figure 4 compares 1998 and 1999 tons for existing programs.



**Curbside recycling** – This service is available to single-family homes up to 4-plexes. 62,826 tons were collected in 1999, which is an increase of 4.6% from 1998. The annual rate of growth over the last five years was 3% (Figure 5).



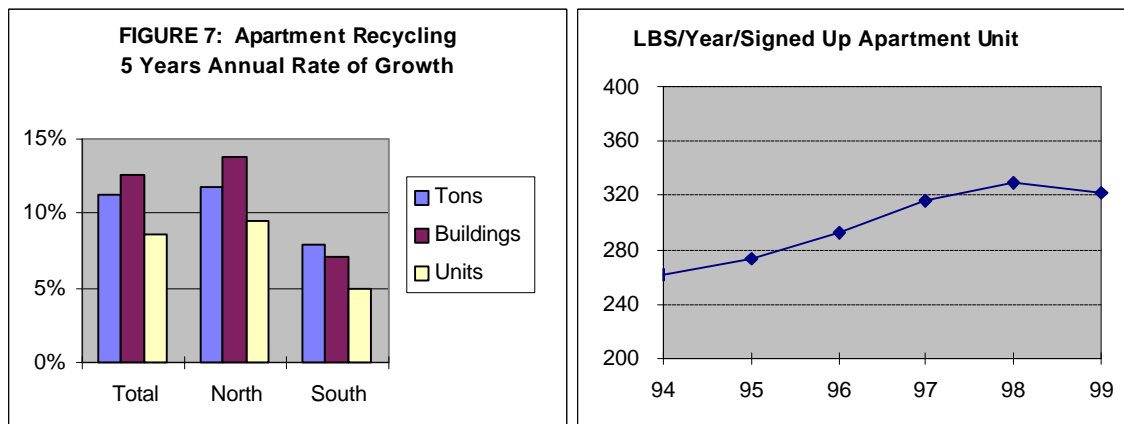
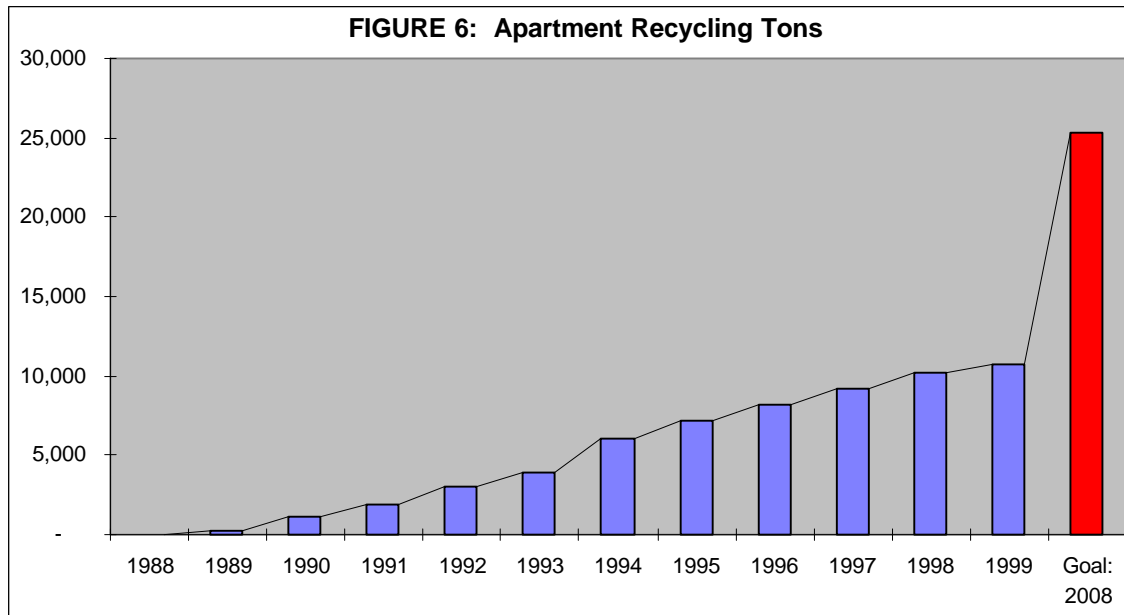
This growth can in part be explained by a similar growth in number of households signed up for curbside recycling.<sup>3</sup> Currently more than 90% of eligible households are self-reported to be participating in the program. The remainder of the tonnage growth could be explained by an increase in the amount of recycling per signed up account.<sup>4</sup>

<sup>3</sup>Recent sign up data is only available for Recycle Seattle, the contractor serving the south end (south of the Ship Canal) of the City. For the south end, tons have grown 2.97% and sign ups have increased 1.78% over the last five years.

<sup>4</sup>In the South end, pounds per signed up account went from 721 lbs in 1994 to 765 in 1998.

SPU desires to more completely divert recyclable material from the residential waste stream. To help achieve this, recycling bins will be distributed to all households during implementation of the new collection contracts in 2000. (Previously, a resident had to request them.) Also, over the next few years, SPU will be conducting promotion campaigns to increase the recycling of targeted materials.

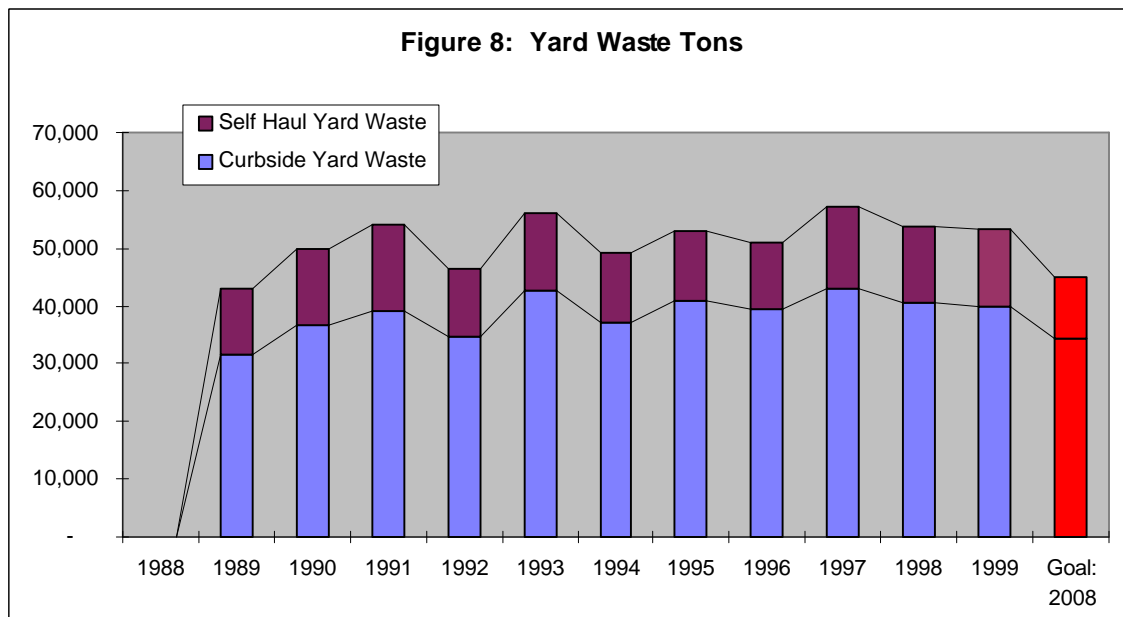
**Apartment recycling**— 10,654 tons were collected in 1999 (Figure 6). Tons increased 4% between 1998 and 1999, while the annual rate of growth over the last five years was 11% (Figure 7).



Currently, of the eligible buildings, 58% are signed up for a recycling program. These buildings account for about 68% of the eligible apartment units. The growth in tons is due in part to growth in number of apartment buildings signed up for the program and in part by more tons from already-participating buildings. The goal is to have 80% of buildings receiving service. To achieve this goal, SPU staff will be visiting every non-recycling building to encourage sign-up, and the program has been made more flexible regarding container sizes to better match available services with building needs. There will also be a multi-family targeted materials campaign.



**Yard Waste.** SPU offers residents three methods of handling their yardwaste: curbside collection, self-haul to the transfer station, and on-site management through backyard composting and grasscycling. 53,428 tons of Seattle yard waste were composted at Cedar Grove in 1999 (Figure 8). This was almost no change compared to 1998. Over the last five years, the average annual amount of collected yard waste was 53,600 tons. In 1999, 76% of the tons were collected at the curb while 24% were self hauled to the City Recycling and Disposal stations. Approximately 58% of eligible accounts are currently signed up for curbside yard waste collection. 46% of households report composting their yardwaste themselves, one third of them in bins supplied by the city. 43% of households report that they typically grasscycle, that is, leave their grass clippings on the lawn. SPU estimates that these efforts divert 14,700 tons of yardwaste per year. SPU plans to continue to promote home-management of yardwaste through grasscycling and backyard composting, thus the future goals for curbside and transfer station yardwaste are for less tons.

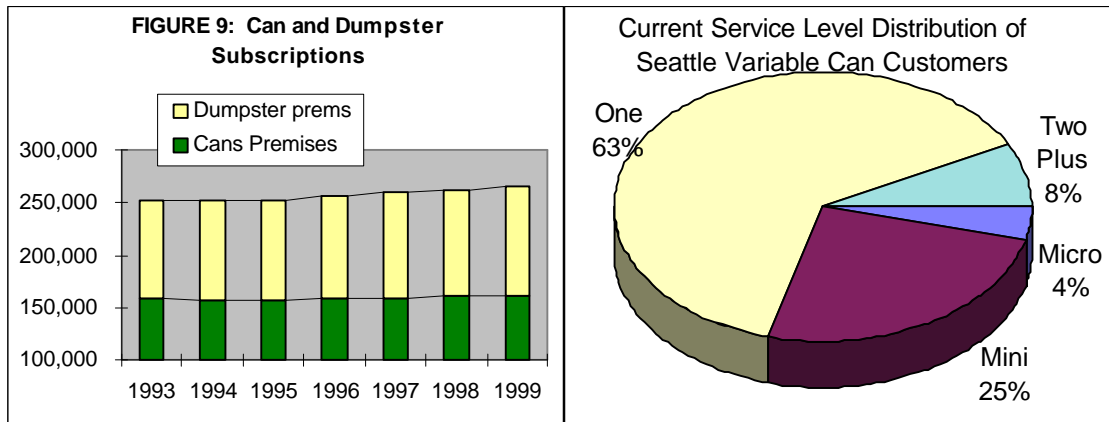


**Foodwaste.** Foodwaste currently comprises about 27% of disposed residential garbage, and compostable paper another 6%. Diverting these tons are critical to Seattle achieving its' 60% recycling goal. Currently, only the Backyard Composting Program helps residents to get foodwaste out of their garbage cans. In 2000, SPU will be developing strategies for least-cost programs to divert more foodwaste. Expanding the backyard composting program and adding curbside collection of foodwaste will be considered.

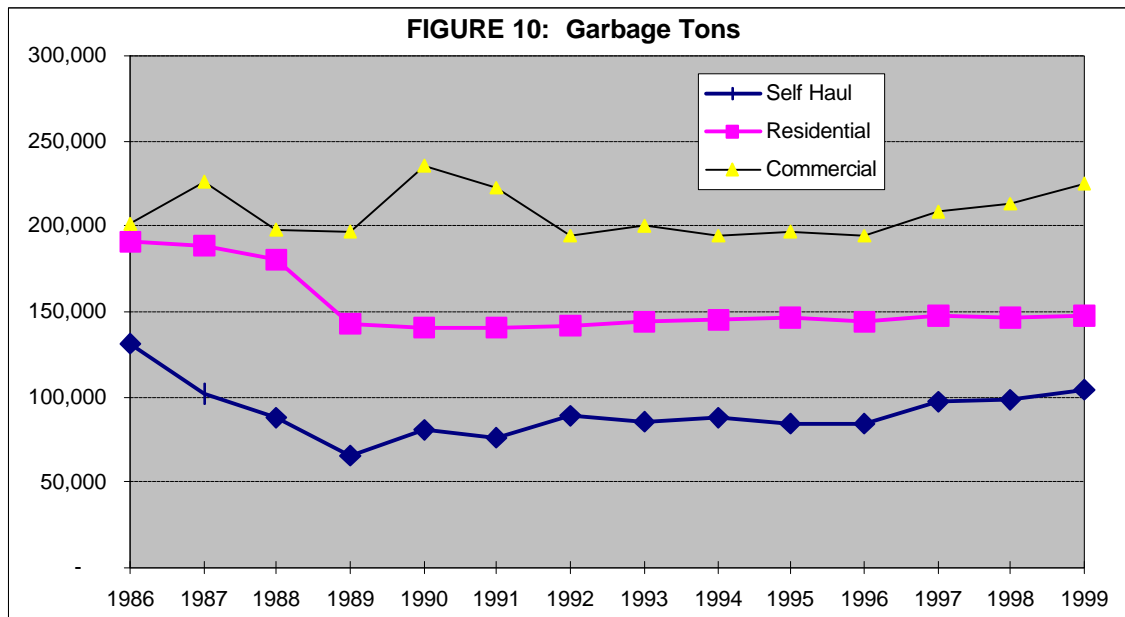
**Garbage.** 147,718 tons were collected from the residential sector in 1999 (Figure 10). This was an increase of 1% from 1998. An estimated 58% of this comes from can customers (generally, 1-4plexes) and 42% from dumpster accounts (generally, 5+ units).<sup>5</sup> Generally, residential garbage has remained stable over the last five years with an average of 146,400 tons per year. This is in line with the growth in subscription to

<sup>5</sup>Based on 1996 GIS analysis of residential collection route areas.

residential garbage collection. Household Subscription. At the end of 1999, about 142,800 accounts were subscribing to can service (representing 161,570 households) and 5,450 accounts were subscribing to dumpster service (representing 103,900 households). Over the last five years, the number of households receiving garbage service grew at an annual rate of less than 1%. Currently, of the residential customers on can service, 4% are signed up for the micro can, 25% for the mini can, 63% for one can, and 8% are signed up for two or more cans (Figure 9). There has been a small movement away from mini and micro cans towards one can and two or more cans subscription.



In addition to the collection tons, 104,367 tons of garbage were self hauled to the City stations during 1999 (Figure 10). This was an increase of 6% from last year. Over the last five years, self-haul garbage has increased at an annual growth rate of 4%. Potential factors explaining this growth are positive economic trends, such as increased levels of construction activity, as well as a general increase in the population of the Seattle area. Another potentially contributing factor is the increase in rates at the King County transfer stations.<sup>6</sup>



<sup>6</sup>The County raised its garbage rates effective April 1, 1997.

**Commercial garbage:** Commercial garbage tons have increased at an annual rate of 2.9 % over the past five years, which is not surprising as employment has increased similarly.

A survey conducted of 1685 businesses in December 1997 showed that there is tremendous participation in recycling: almost all large businesses reported that they recycle (98% of businesses with greater than 50 employees), and a lower percentage but still most medium and smaller businesses recycle (81% to 90%). Waste sampling data show that there are still large amounts of plastic film, paper and wood in the commercial disposal stream. The Solid Waste Plan addresses this with a targeted material campaign which will begin in 2000 and continue over the next few years, and will focus on these materials.

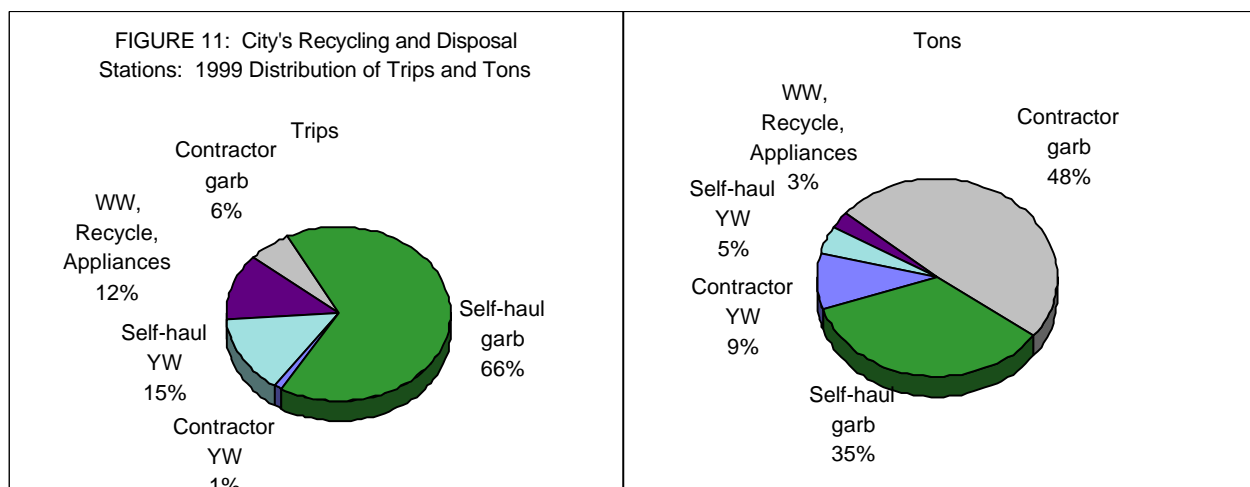
### **RECYCLING AND DISPOSAL STATIONS**

The City Recycling and Disposal Stations processed approximately 352,600 customer transactions in 1999. This was an increase of 4% compared to 1997. Total tons processed through the stations increased 4% to approximately 301,000 tons. See Table 3 for a summary of station trips and tons.

**Table 3 - Summary of 1999**

Customer category	Station Trips			Tons		
	# of trips	% of total	98-99 change	# of tons	% of total	98-99 change
Contractor garbage	23,212	6.47%	+3.44%	147,700	49.02%	+2.78%
Self-haul garbage	237,191	66.09%	+1.61%	104,367	34.64%	+6.48%
Contractor yardwaste	3,778	1.05%	+2.61%	27,800	9.23%	-.80%
Self-haul yardwaste	52,288	14.57%	-1.36%	13,691	4.54%	+5.02%
Recycle	42,395	11.81%	+21.93%	7,723	2.56%	+16.14%

The 1999 distribution of tons and trips by material is illustrated in Figure 11.



Many tons of recyclables still go into the garbage pit, and to reach the 60% recycling goal, much more diversion of this material will be necessary. The Solid Waste Plan proposes a new Reuse/Recycling facility at or near the south Station that is more convenient for customers and accepts a much wider range of materials, particularly those from construction and demolition. In 2000, efforts will focus on identifying a location for this facility and doing preliminary design work.

**POPULATION AND EMPLOYMENT DATA** - Waste generation is a function of population and employment levels, as well as many other factors such as household size and income. Table 4 summarizes recent population estimates (from the Washington State Office of Financial Managements) and employment estimates (from the Puget Sound Regional Council).

Table 4 - Population and Employment Summary						
	1990	1995	1998	1999	Annual change	
Population	516,259	532,900	539,700	540,500	+.35%	1995 to 1999
Jobs	NA	423,230	474,600	NA	+3.82%	1995 to 1998

**FINANCIAL PERFORMANCE:** The preliminary (unaudited) 1999 financial results for the Solid Waste Fund were strong. The Fund met its financial targets for cash reserves and net income, ending the year with positive net income of \$870,000.

The charts below show the 1999 breakdown of the Fund's revenue and expenses.

